California Regional Water Quality Control Board

Los Angeles Region

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Dr. Alan Lloyd
Agency Secretary

Arnold Schwarzenegger
Governor

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RF

July 8, 2005

Mr. Steve Granade, Environmental Engineer
Naval Base Ventura County
Environmental Division, Code N45V
311 Main Road, Suite #1
Point Mugu, CA 93042-5000

GENERAL WASTE DISCHARGE REQUIREMENTS (ORDER NO. R4-2005-0030, SERIES NO. 020, CI NO. 8906) MAGNESIUM SULFATE AND SODIUM SULFATE INJECTION TO ENHANCE NATURAL ATTENUATION OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER – BUILDING 631, GOVERNMENT MOTOR FUEL STATION, 631 12TH STREET, NAVAL BASE VENTURA COUNTY, POINT MUGU, CALIFORNIA (SLIC NO, 282, FILE NO. 98-017)

Dear Mr. Granade:

Los Angeles Regional Water Quality Control Board (Regional Board) staff have completed our review of your application for coverage under General Waste Discharge Requirements (WDR) to inject solutions of site groundwater mixed with magnesium sulfate and sodium sulfate into the shallow "semi-perched" aquifer underlying the site to enhance naturally occurring bioremediation of petroleum fuel hydrocarbons. We have determined that the proposed discharge meets the conditions specified in Regional Board Order No. R4-2005-0030, "*General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound Impacted Sites*," adopted by this Regional Board on April 19, 2005. Refer to the attached Fact Sheet.

The primary contaminants in groundwater at the site are benzene, toluene, ethylbenzene, xylenes, (BTEX), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and di-isopropyl ether (DIPE). The Navy proposes to inject magnesium and sodium sulfate-based solutions to promote naturally occurring sulfate reduction and enhance bioremediation. Several case histories were provided to the Regional Board documenting the successful application of this remedial technology at sites contaminated with petroleum hydrocarbons.

You may begin to inject a maximum of 8,000 gallons of an aqueous solution containing approximately 755 pounds of sodium sulfate and magnesium sulfate into the shallow "semi-perched aquifer, at an initial concentration of approximately 11,000 milligrams per liter, via four injection wells and several horizontal injection lines placed in the tank excavation prior to backfilling. The injection will occur into the dissolved hydrocarbon plume, at Naval Base Ventura County, Point Mugu Naval Air Station, Building 631 at approximately Latitude: N34.11°, Longitude: W-119.10°.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2005-0030 (Series 020) and Monitoring and Reporting Program No. CI-8906. Please note that the discharge

Barbara Carey, California Coastal Commission, South Central Coast Office Vicki Clark, Environmental Defense Center
Allison Detmer, California Coastal Commission, Energy and Ocean Resources Division
Mary Meyer, California Department of Fish & Game
Heal the Bay
Port Hueneme Water Agency
Doug Beach, Ventura County Environmental Health
Glen Luscomb, Ventura County Public Works
Ernest Lorie, US Navy, Port Hueneme

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2005-0030
REVISED GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES
(FILE NO. 01-116)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. Pursuant to Division 7 of the California Water Code, this Regional Board at a public hearing held on January 24, 2002, adopted the General Waste Discharge Requirements (WDRs) (Order No. R4-2002-0030) relative to the groundwater remediation at petroleum hydrocarbon fuel and/or volatile organic compound impacted sites.

2. Item A-2-c of the Order R4-2002-0030 includes a list of materials to be used for in-situ remediation purposes. At that time, the Regional Board had not evaluated a sufficient number of sites using ozone as a remediation material to document the effectiveness of ozone application for groundwater remediation. Therefore, ozone was not included on the list of approved materials. The application of ozone to groundwater remediation is subject to individual site-specific WDRs. Since then, the Regional Board has adopted a number of individual WDRs for ozone application throughout the Region and found that ozone can be effective in site cleanup and remediation projects. The revised WDRs are to include ozone to the list of materials for in-situ remediation zone purposes and include a brief list of tracer materials that can be utilized at sites to aid in determination of the effectiveness of clean up material application.

3. The California Water Code (CWC), section 13260, subdivision (a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community waste water collection system, which could affect the quality of the waters of the State, shall file a Report of Waste Discharge with the Regional Board. The Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.

4. Section 13263, subdivision (i) of the CWC provides that a Regional Board may prescribe general waste discharge requirements (WDRs) for discharges produced by similar operations, involving similar types of wastes, and requiring similar treatment standards.

5. The adoption of general WDRs for in-situ groundwater remediation/cleanup or the extraction of polluted groundwater with above ground treatment and the return of treated groundwater to the same aquifer zone would: a) simplify the application process for dischargers, b) allow more efficient use of Regional Board staff time, c) reduce Regional Board time by enabling the Executive Officer to notify the discharger of the applicability of the general WDRs, d) enhance the protection of surface water quality by eliminating the

December 27, 2004
Revised January 5, 2005
Revised February 1, 2005
Revised April 19, 2005

11. Treated groundwater that exhibits general mineral content that is naturally occurring and exceeds Surface Water Basin Plan Objectives must be treated if discharged into surface waters under a separate National Pollutant Discharge Elimination System (NPDES) Permit.

12. The general WDRs are applicable to groundwater remediation at petroleum hydrocarbon fuel and/or volatile organic compound impacted sites. Depending on the Report of Waste Discharge, the Executive Officer determines the annual fee based on the threat to water quality and complexity of the discharge. The general WDRs are to regulate groundwater discharges that have a threat to water quality of Category 3 and Complexity rating of A for a combined rating of 3-A.

13. Discharges with a rating of 3-A contain pollutants that could degrade water quality or cause a minor impairment of designated beneficial uses within the application area of the receiving groundwater. The discharges covered by these requirements will have a groundwater monitoring program to comply with requirements prescribed in this Order.

14. The requirements contained in this Order were established by considering, and are consistent with, all the water quality control policies, plans, and regulations mentioned above and, if they are met, will protect and maintain the existing beneficial uses of the receiving groundwater.

15. The permitted discharge is consistent with the antidegradation provisions of State Water Resources Control Board Resolution No. 68-16 (Anti-degradation Policy). The impact on existing water quality will not be significant in comparison to individual WDRs, and the general WDRs will improve the quality of the affected groundwater.

16. These general WDRs are not intended to alter or supersede any existing restrictions or working arrangements relating to cleanup cases with local governmental agencies.

17. In accordance with the Governor's Executive Order requiring any proposed activity be reviewed to determine whether such activity will cause additional energy usage, this Regional Board has determined that implementation of these general WDRs will not result in a change in energy usage exceeding what would be used if site-specific WDRs were issued for cleanup at these sites.

18. The Regional Board has prepared an Initial Study and Mitigated Negative Declaration for the issuance of these general WDRs in accordance with the provisions of the California Environmental Quality Act (CEQA).

19. The Regional Board has notified interested agencies and persons of its intent to prescribe general WDR's for the discharges covered under these general WDRs, and

- Site-specific geology (lithology and physical parameters) and hydrogeologic parameters, hydrologic report;
- Infiltration rate;
- Characterization and extent of petroleum hydrocarbon fuel and/or volatile organic compound plume(s);
- Description of the treatment system(s);
- Adequate groundwater monitoring network with historical groundwater monitoring report;
- Description of the areal extent of the application area and identification of monitoring wells to be used to determine water quality upgradient, within the application area, downgradient from the application area and identify the compliance point;
- Material Safety Data Sheet (MSDS) information and other product technical information for any materials to be used for cleanup;
- Application rate(s), material type(s) and applied concentrations; and
- Evaluation of loading rates for nitrogen compounds, total dissolved solids, sulfate, and chloride compounds.

c. The General Waste Discharge Requirements would allow the following materials to be used for in-situ remediation purposes:

1. **Oxidation/Aerobic Degradation Enhancement Compounds:**
   - Fenton's reagent (hydrogen peroxide, ferrous iron catalyst, and pH buffer)
   - Hydrogen peroxide
   - Potassium or sodium permanganate
   - Oxygen release compound (ORC) magnesium peroxide
   - Ozone

2. **Reducing/Reductive Degradation Enhancement Compounds:**
   - Polysulfide
   - Hydrogen release compound (HRC) polyacetate ester
   - Zero-valent iron

3. **Inorganics/Nutrients:**
   - Nitrate, ammonia, phosphate, vitamins

4. **Carbon Sources/Electron Donors:**
   - Acetate, lactate, propionate, benzoate, oleate, ethanol, propanol, methanol, glucose, complex sugars such as molasses or corn syrup, other food process byproducts such as milk whey or yeast extract, other complex organic material such as wood chips

b. New dischargers shall file a complete application to include all information identified in Items A1, A2 and as above at least 60 days before planned commencement of any discharge.

2. Forms for Report of Waste Discharge

a. Dischargers shall use the appropriate forms (Standard Form 200) or equivalent forms approved by the State Water Resources Control Board or the Executive Officer of the Los Angeles Regional Board.

b. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.

c. The Report of Waste Discharge shall be accompanied by the first annual fee (if appropriate) in accordance with the current version of California Code of Regulation, Title 23, Division 7, Chapter 9, Waste Discharge Report and Requirements Article 1 fees for a discharge. The check or money order shall be made payable to the "State Water Resources Control Board."

D. DISCHARGE PROHIBITIONS

1. The discharge of wastes other than those which meet eligibility requirements in Part A of this Order is prohibited unless the discharger obtains coverage under another general permit or an individual site specific permit that regulates the discharge of such wastes.

2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

3. Creation of a pollution, contamination, or nuisance, as defined by section 13050 of the California Water Code (CWC), is prohibited.

4. The surfacing as overflow of wastes from the treatment system at any time and at any location is prohibited.

5. The disposal of wastes in geologically unstable areas or so as to cause earth movement is prohibited.

8. Waste discharged shall not cause the groundwater to contain in amounts that cause nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO_3-N+NO_2-N), 45 mg/L as Nitrate (NO_3), 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N), outside the application area or treatment zone at the compliance point(s).

F. PROVISIONS

1. The Executive Officer may require any discharger authorized under this Order to apply for and obtain individual WDRs with specific requirements. The Executive Officer may require any discharger authorized to discharge under this permit to apply for individual WDRs only if the discharger has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual requirements, the authority to discharge under this General WDRs are no longer applicable.

2. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements." (Attachment B) If there is any conflict between provisions stated herein before and the attached "Standard Provisions," those provisions stated herein shall prevail.

3. Adequate facilities shall be provided to divert surface and storm water away from the application area and/or treatment system and areas where any pollutants are stored.

4. The application of materials or the re-injection of treated groundwater shall only be at a site owned or controlled by the discharger.

5. All work must be performed by or under the direction of a registered civil engineer, professional geologist, or certified engineering geologist. A statement is required in all technical reports that the registered professional in direct responsible charge actually supervised or personally conducted all the work associated with the project.

6. The discharge of wastes to or infiltration to a surface water system must be covered by separate WDRs under the National Pollution Discharge Elimination System (NPDES) permit.

7. This Order does not alleviate the responsibility of discharger to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.

4. The discharger shall maintain all sampling, measurement and analytical results, including the date, exact place, and time of sampling or measurement; individual(s) who did the sampling or measurement; the date(s) analyses were done; analysts' names; and analytical techniques or methods used.

5. All sampling, sample preservation, and analyses must be conducted according to test procedures under title 40 Code of Federal Regulations, section 136, unless other test procedures have been specified in this Order or by the Executive Officer.

6. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (CDHS-ELAP) or other state agency authorized to undertake such certification.

7. The discharger shall calibrate and maintain all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

8. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements. Laboratory analytical data from any soil testing and/or groundwater monitoring shall be reported in Electronic Deliverable Format in accordance with California Water Code section 13195 et. seq. requirements, if applicable.

9. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

10. The discharger shall file a report of any material change or proposed change in the character, location or volume of the discharge.

11. The discharger shall notify this Regional Board within 24 hours by telephone of any adverse condition resulting from the discharge, such notification shall be affirmed in writing within five working days.

12. Whenever wastes, associated with the discharge under this Order, are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.

Table 3-10. Water Quality Objectives for Selected Constituents in Regional Ground Waters[a].

DWR Basin No.[b]	BASIN	OBJECTIVES (mg/L)			
		TDS	Sulfate	Chloride	Boron
	Pitas Point Area [c]	None specified			
	Ojai Valley				
4-1	Upper Ojai Valley				
	West of Sulfur Mountain Road	1,000	300	200	1.0
	Central area	700	50	100	1.0
	Sisar area	700	250	100	0.5
4-2	Lower Ojai Valley				0.5
	West of San Antonio–Senior Canyon Creeks	1,000	300	200	0.5
	East of San Antonio–Senior Canyon Creeks	700	200	50	
4-3	**Ventura River Valley**				
	Upper Ventura	800	300	100	0.5
	San Antonio Creek area	1,000	300	100	1.0
	Lower Ventura	1,500	500	300	1.5
	Ventura Central [d]				
4-4	Santa Clara–Piru Creek area				
	Upper area (above Lake Piru)	1,100	400	200	2.0
	Lower area east of Piru Creek	2,500	1,200	200	1.5
	Lower area west of Piru Creek	1,200	600	100	1.5
	Santa Clara–Sespe Creek area				
	Topa Topa (upper Sespe) area	900	350	30	2.0
	Fillmore area				
	Pole Creek Fan area	2,000	800	100	1.0
	South side of Santa Clara River	1,500	800	100	1.1
	Remaining Fillmore area	1,000	400	50	0.7
	Santa Clara–Santa Paula area				
	East of Peck Road	1,200	600	100	1.0
	West of Peck Road	2,000	800	110	1.0
	Oxnard Plain				
	Oxnard Forebay	1,200	600	150	1.0
	Confined aquifers	1,200	600	150	1.0
	Unconfined and perched aquifers	3,000	1,000	500	–
4-6	Pleasant Valley				
	Confined aquifers	700	300	150	1.0
	Unconfined and perched aquifers	–	–	–	–
4-7	Arroyo Santa Rosa	900	300	150	1.0
4-8	Las Posas Valley				
	South Las Posas area				
	NW of Grimes Cyn Rd & LA Ave & Somis Rd	700	300	100	0.5
	E of Grimes Cyn Rd and Hitch Blvd	2,500	1,200	400	3.0
	S of LA Ave between Somis Rd & Hitch Blvd	1,500	700	250	1.0
	Grimes Canyon Rd & Broadway area	250	30	30	0.2
	North Las Posas area	500	250	150	1.0
4-5	**Upper Santa Clara**				
	Acton Valley	550	150	100	1.0
	Sierra Pelona Valley (Agua Dulce)	600	100	100	0.5
	Upper Mint Canyon	700	150	100	0.5
	Upper Bouquet Canyon	400	50	30	0.5
	Green Valley	400	50	25	–
	Lake Elizabeth–Lake Hughes area	500	100	50	0.5

Table 3-10. Water Quality Objectives for Selected Constituents in Regional Ground Waters[a] (cont.)

DWR Basin No.[b]	BASIN	OBJECTIVES (mg/L)			
		TDS	Sulfate	Chloride	Boron
4-19	Thousand Oaks area	1,400	700	150	1.0
4-20	Russell Valley				
	Russell Valley	1,500	500	250	1.0
	Triunfo Canyon area	2,000	500	500	2.0
	Lindero Canyon area	2,000	500	500	2.0
	Las Virgenes Canyon area	2,000	500	500	2.0
4-21	Conejo-Tierra Rejada Volcanic area[h]	–	–	–	–
4-22	Santa Monica Mountains--southern slopes[i]				
	Camarillo area	1,000	250	250	1.0
	Point Dume area	1,000	250	250	1.0
	Malibu Valley	2,000	500	500	2.0
	Topanga Canyon area	2,000	500	500	2.0
	San Pedro Channel Islands[j]				
	Anacapa Island	–	–	–	–
	San Nicolas Island	1,100	150	350	–
	Santa Catalina Island	1,000	100	250	1.0
	San Clemente Island	–	–	–	–
	Santa Barbara Island	–	–	–	–

a. Objectives for ground waters outside of the major basins listed on this table and outlined in Figure 1-9 have not been specifically listed. However, ground waters outside of the major basins are, in many cases, significant sources of water. Furthermore, ground waters outside of the major basins are either potential or existing sources of water for downgradient basins and, as such, objectives in the downgradient basins shall apply to these areas.

b. Basins are numbered according to Bulletin 118-80 (Department of Water Resources, 1980).

c. Ground waters in the Pitas Point area (between the lower Ventura River and Rincon Point) are not considered to comprise a major basin, and accordingly have not been designated a basin number by the California Department of Water Resources (DWR) or outlined on Figure 1-9.

d. The Santa Clara River Valley (4-4), Pleasant Valley (4-6), Arroyo Santa Rosa Valley (4-7) and Las Posas Valley (4-8) Ground Water Basins have been combined and designated as the Ventura Central Basin (DWR, 1980).

e. The category for the Foothill Wells area in previous Basin Plan incorrectly groups ground water in the Foothill area with ground water in the Sunland-Tujunga area. Accordingly, the new categories, Foothill area and Sunland-Tujunga area, replace the old Foothill Wells area.

f. All of the ground water in the Main San Gabriel Basin is covered by the objectives listed under Main San Gabriel Basin – Eastern area and Western area. Walnut Creek, Big Dalton Wash, and Little Dalton Wash separate the Eastern area from the Western area (see dashed line on Figure 2-17). Any ground water upgradient of these areas is subject to downgradient beneficial uses and objectives, as explained in Footnote a.

g. The border between Regions 4 and 8 crosses the Upper Santa Ana Valley Ground Water Basin.

h. Ground water in the Conejo-Tierra Rejada Volcanic Area occurs primarily in fractured volcanic rocks in the western Santa Monica Mountains and Conejo Mountain areas. These areas have not been delineated on Figure 1-9.

i. With the exception of ground water in Malibu Valley (DWR Basin No. 4-22), ground waters along the southern slopes of the Santa Monica Mountains are not considered to comprise a major basin and accordingly have not been designated a basin number by the California Department of Water Resources (DWR) or outlined on Figure 1-9.

j. DWR has not designated basins for ground waters on the San Pedro Channel Islands.

(b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

(c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.

(d) Increase in flow beyond that specified in the waste discharge requirements.

(e) Increase in the area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board. [CCR Section 13263]

7. TERMINATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. [CWC Section 13263(g)]

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provision of these requirements are found invalid, the remainder of the requirements shall not be affected. [CWC Section 921]

13. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

(d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC Section 13267]

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Office a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR Title 23, Section 2230]

to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

(a) The date, exact place, and time of sampling or measurement;

(b) The individual(s) who performed the sampling or measurement;

(c) The date(s) analyses were performed;

(d) The individual(s) who performed the analyses;

(e) The analytical techniques or method used; and

(f) The results of such analyses.

19. (a) All application reports or information to be submitted to the Executive Office shall be signed and certified as follows:

(1) For a corporation – by a principal executive officer or at least the level of vice president.

(2) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

(b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:

(1) The authorization is made in writing by a person described in paragraph (a) of this provision.

(2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and

(3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-8906
UNITED STATES NAVY, NAVAL BASE VENTURA COUNTY
(BUILDING 631, 631 12th STREET)
POINT MUGU, CALIFORNIA

ORDER NO. R4-2005-0030 (SERIES NO. 020)
(FILE NO. 98-017)

I. Discharge Monitoring

For this Monitoring and Reporting Program the Discharger shall sample from one monitoring well (MW-4), upgradient of the injection areas, two monitoring wells down gradient of the injection areas (MW-9 and MW-10), and one well within the injection areas (MW-2). Maps of the area and site are provided as Figures 1 through 5. Monitoring of the results of injection shall consist of sampling and analyzing groundwater samples from these groundwater-monitoring wells. Groundwater shall be monitored for the duration of the evaluation in accordance with the following discharge monitoring program:

Groundwater

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total daily injection waste flow	Liters/day, or other units as appropriate	Not Applicable	Daily during injection
Total Petroleum Hydrocarbons (EPA Method 8015 Modified)	mg/l	Grab, from wells MW-2, MW-4, MW-9, and MW-10.	• Prior to injection • 1 week after injection • Weekly for 2nd and 3rd weeks • Monthly for the next 2 months • Every 3 months thereafter
MTBE, DIPE, ETBE, TAME, TBA and BTEX (EPA Method 8260B)	µg/l	Grab, from wells MW-2, MW-4, MW-9, and MW-10.	• Prior to injection • 1 week after injection • Weekly for 2nd and 3rd weeks • Monthly for the next 2 months • Every 3 months thereafter
Cations (barium, calcium, magnesium, manganese, potassium and sodium)	mg/l	Grab, from wells MW-2, MW-4, MW-9, and MW-10.	• Prior to injection • 1 week after injection • Weekly for 2nd and 3rd weeks • Monthly for the next 2 months

II. Reporting and Laboratory Analyses

A. REPORTING REQUIREMENTS

1. In accordance with Section 13267 of the California Water Code, the Discharger shall furnish, under penalty of perjury, technical monitoring report to the Regional Board during the evaluation and any post-test monitoring period. Such reports shall be submitted in accordance with specifications prepared by the Executive Officer.

2. The monitoring reports shall be submitted quarterly by the 15th of the following month, with the first report due October 15, 2005. Subsequent quarterly reports shall be received at the Regional Board according to the following schedule:

Monitoring Period	Report Due
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15
Annual Summary Report	March 1 of each year

3. If there is no discharge or injection, during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.

4. All monitoring reports shall include discharge limitations in the Order (Waste Discharge Requirements and Discharge Prohibitions), tabulated analytical data, the chain of custody, laboratory report (including but not limited to date and time of sampling, date of analyses, method of analysis and detection limits). If there is no discharge, the report shall so state it.

5. Within six (6) months following the end of the evaluation the Discharger shall submit a final summary report to the Regional Board to report the findings.

   The report shall contain both tabular and graphical summaries of the monitoring data obtained prior to and proceeding the pilot test. In addition, US Naval Base Ventura County, Port Hueneme shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the site's waste discharge requirements, if any.

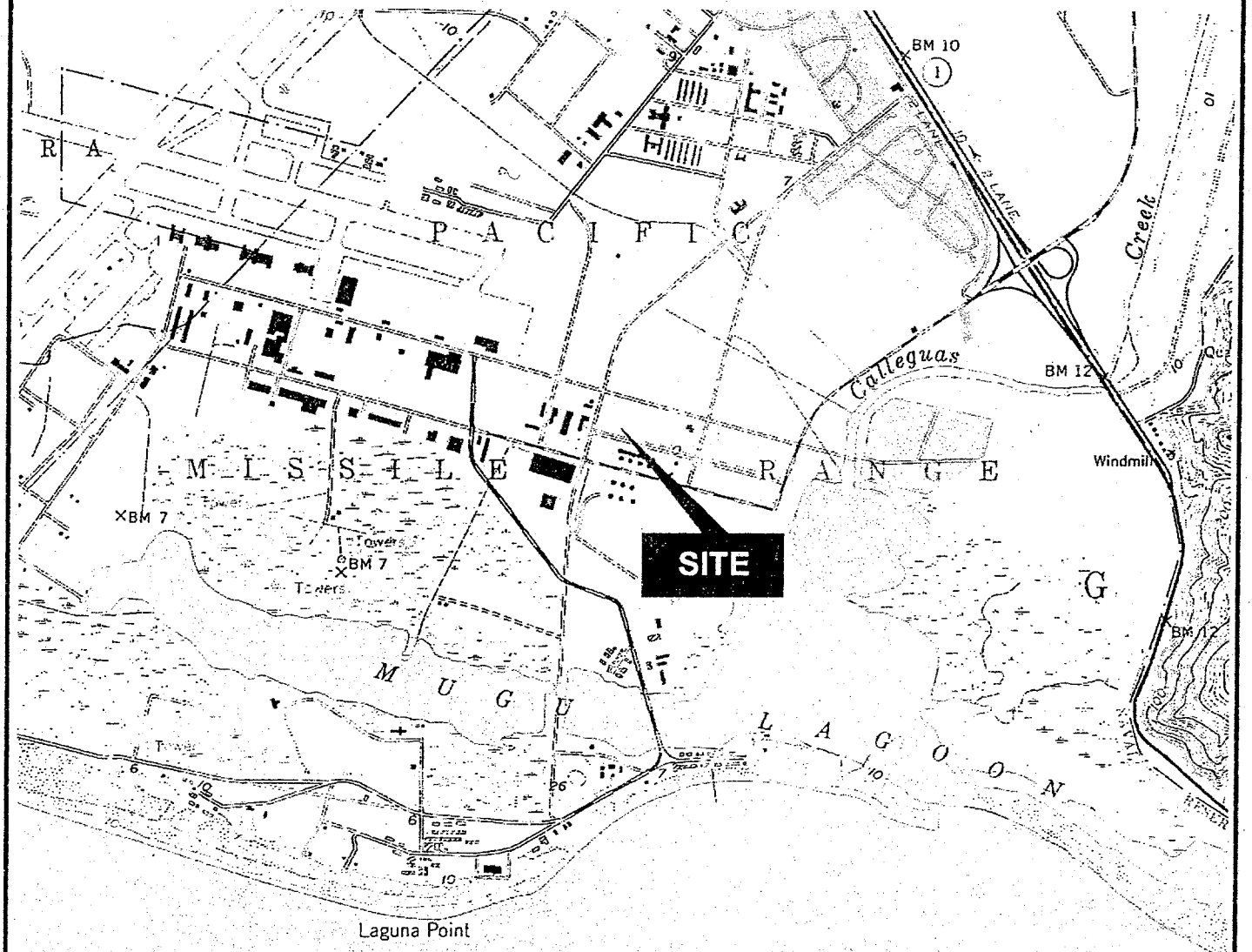
IV. Monitoring Frequency

1. Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

2. All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by: _____
Jonathan Bishop
Executive Officer

Date: July 8, 2005



REFERENCE: USGS 7.5 Minute Series Point Mugu, California Quad, Photorevised 1974

FIGURE 2

SITE VICINITY MAP

NAVAL BASE VENTURA COUNTY
POINT MUGU
BUILDING 631
VENTURA COUNTY, CALIFORNIA

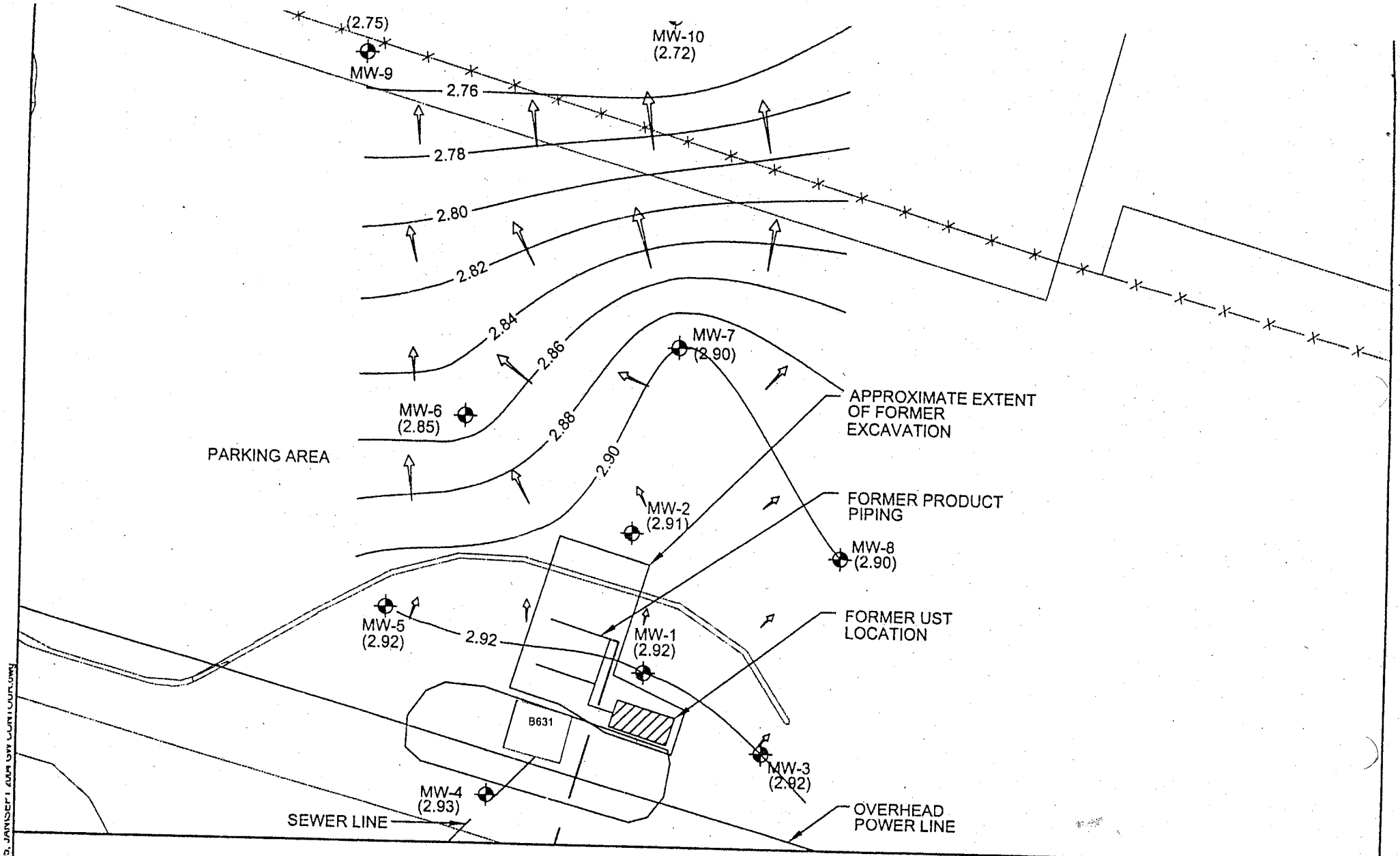
N

0 1/2 1

Scale in Miles

URS

L:/Naval Base Ventura/pt mugu.fh10 6/20



LEGEND

MW-1 (2.92) — Monitoring Well Location; Groundwater Elevation Relative to Feet Mean Sea Level (September 27, 2003)

2.86 — Groundwater Contour in Feet Mean Sea Level

Approximate Direction of Groundwater Flow

0 50' 100'

URS Corporation

SEPTEMBER 2004
GROUNDWATER CONTOUR MAP

Proj. No.:	29865958	Date:	JAN 2005
Project:	NBVC, POINT MUGU BUILDING 631	CAD ID.:	
		Figure:	4

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